

Catholic Cemeteries – Caretaker Notes

IRRIGATION

Unlike other cemeteries, Catholic Cemeteries in the Diocese of Rockville Centre maintain an irrigation system for our burial lawn grounds. This ensures a healthy lawn throughout most seasons of the year.

It is important to note that [irrigation is not part of Permanent Maintenance](#), but an added benefit at the discretion of management to enhance the appearance of our catholic cemeteries. We follow [smart watering practices](#) provided to us by the local water departments. Currently our sprinklers run from early evening until early morning each day during the watering season. (This is one significant reason for us limiting visitation hours at the cemetery grounds.) During drought conditions, we may need to adjust or cease our watering activities to comply with local water department directives.

At the Cemetery of the Holy Rood, there are over 80 sprinkler zones at work for a significant portion of the year. Given the vast amount of property in our cemeteries it is impossible for each sprinkler head to reach every portion of the entire property.

We have on-site wells, which provide almost 99% of the water used. This means no added chlorine or chemicals, which promote growth and beautiful lawns at our cemeteries for visitors to enjoy.

It is a requirement that underground sprinkler systems contain a backflow device. Backflow is the reverse flow of water into the water supply and can occur if there is an unexpected decrease in water pressure. Our backflow device prevents fertilizer and chemicals to seep into the main pipe and water supply. The device undergoes a yearly test by licensed inspectors. The results are reported to and recorded by local water authorities.

Maintaining our irrigation systems is an ongoing process. There are miles of underground piping at each cemetery location. It is extremely labor intensive to keep the system running well. Cemetery grounds are in a constant state of change as gravesites are opened and closed on a daily basis. Special attention needs to be given not to damage pipes during burial excavation work. As we continue to update our system, more energy efficient means are implemented.



Frequently asked questions regarding watering:

Why are my plants dry in front of the monument?

The sprinkler heads are designed to place the maximum water in the lawn areas of the cemetery. They are not intended to water the area in front of the family monument at the gravesite. As a reminder, any planting done within the allowable space in front of the cemetery monument needs to be maintained (watered and cared for) by you.



Why is the grass brown? I don't think there is enough water.

There could be numerous reasons that attribute to brown grass. Brown grass is not dead, it is merely dormant. Excessive sun, shade, fertilization, rain and heat are all factors that influence the lawn area appearance. Often the appearance of brown grass is a direct factor of summer heat and following periods of deficient natural rain fall. The lawn sprinkler is designed to establish new grass growth and maintain a lawn's appearance during normal weather conditions. It is not designed to replace nature's watering.

Why was the lawn sprinkler on during the day at my last gravesite visit?

The lawn sprinkler is tested weekly during the irrigation season. The staff isolates a particular zone or zones and tests the system components. [An inspection is completed for many reasons.](#)

The goal of an irrigation system is to evenly apply water in a desired manner on a scheduled basis. Areas that are continuously wet or excessively wet after or between watering cycles should be addressed immediately. Several factors can result in "wet spots," here are a few common causes:

Leaking Zone Control Valves:

The individual valves in your system are essentially like faucets, they turn the water on and off. Like a faucet, they can leak. Leakage can be caused by something caught in the mechanism which operates the valve or it can also be a sign the valve is old and may need a replacement part installed. The most visible symptom of a leaking valve is water continuously coming out of a head long after the system has shut off. (Noted: This can also be a symptom of low head drainage, which is described below.)

Low-Head Drainage:

This problem is caused by water siphoning out of the lowest head in a sprinkler zone after watering is completed. When the water flow to the zone has been shut off at the end of its cycle, the remaining water in the lines will drain downhill to the lowest point. If a sprinkler head is located in the lowest part of the system, water will flow out of that head until an equilibrium has been reached or all of the water has emptied out of the zone's pipes.

Low head drainage can be a problem if the water collects in a low area of the lawn and makes a puddle.

This normal process is caused by gravity flow and water attempting to reach its own level and is typically not considered a problem. If it becomes a problem it can usually be corrected by adjustments to the system or installation of devices, called drain check valves, which can prevent low head drainage.

Broken Pipes:

"Wet Spots" can also be caused by broken pipes in the system. There are two types of lines in irrigation systems where pipe breaks can occur: Main (Constant Pressure) Lines and Lateral (Zone) Lines. In order to assess the situation, it will best be served by determining which type of line is broken.

Main (Constant Pressure) Line: This pipe leads from the backflow prevention device to the individual zone control valves and supplies the system with continuous water pressure. If it breaks or has a leak in a main line, the water will flow continuously whether the system is running or not. The flow may be large enough to erode a hole in the soil or cause a continuous leak or wet spot.

Lateral (Zone) Lines:

These pipes feed the various individual zones of the sprinkler system that are under pressure only when the system is actually running. A lateral line break can be hard to spot as it only leaks while that particular zone or station of the system is active. No matter whether it is a small leak or a large break, it will eventually erode the soil and create a hole in the lawn or bed.

Line breaks waste water and can cause damage by erosion or over-watering. Both Main Line and Lateral Line breaks should be repaired by an irrigation professional. Contaminants (dirt, rocks or mulch) could enter the line during repairs and clog or permanently damage downstream sprinklers and other components.

If there is a lateral line break, the line can be isolated from the system and continue to operate the system by turning off the zone containing the break until the repair is made. This will limit the damage done to the overall landscape.

A number of factors can lead to poor coverage of turf and landscape areas resulting in brown patches and uneven plant growth. In some instances, there is a specific problem with the sprinkler equipment. In other cases, the system design or operating pressure need to be investigated.

Incorrect Sprinkler Height:

One of the most common and recurring problems resulting in poor coverage and damage to sprinkler systems is the improper installation height of individual sprinkler heads.

Sprinklers installed too low can not rise above the turf or other plant materials. This results in an interruption of the sprinkler's pattern of throw and can lead to gaps in coverage and flooding near the sprinkler. In addition, sprinklers installed too low are more prone to retraction problems and pre-mature failure as soil enters into the operating mechanism.

In shrubbery areas, heads may be located at the base of the shrubs or groundcover they are watering. These heads must be close enough together to cover the area by throwing water under the plant material. As shrubs mature, adjustments may be necessary to ensure coverage is still adequate. This practice occurs mostly around cemetery offices, shrine areas, and mausoleum buildings.

In many cases where heads were installed correctly, the turf builds up and grows with time, causing the heads to be too low relative to the surrounding grass. All systems should be periodically checked to make certain grass or plantings do not interrupt sprinkler patterns.

Sprinklers installed too high are an invitation to damage by mowing equipment or vandalism. They can also be a trip hazard resulting in unwanted injury. Sprinklers which are installed too high should be corrected before damage or injury occurs.

Helpful Tip:

Avoid trimming or digging out divots around sprinkler heads or using a weed-eater to trim away grass each week.

Clogged Sprinkler Nozzles:

Dirt or debris which finds its way into sprinkler nozzles can quickly disrupt sprinkler spray patterns. Even in systems with heads spaced correctly, clogged nozzles can cause uneven coverage. The first step in evaluating the cause of dry areas is to observe the spray pattern of each head in the zone.

Incorrect Sprinkler Head Spacing:

Often in watching a system operating, the casual observer may conclude that full, even coverage is being achieved because heads are throwing water over a given area.

Manufacturer's specifications require what is referred to as "head to head" coverage. Each head is expected to throw far enough to touch the adjacent heads and vice versa. This type of coverage allows for optimum overlap and compensates for any potential imperfections in spray pattern or other conditions which may affect complete, even coverage.

Unevenness in lawn color or brown patches can indicate poor coverage. Systems having poor coverage will show their weakness during extreme dry conditions or when new installations require even watering because plantings have yet to develop mature and spreading root systems. Additional watering time and hand watering can sometimes help to resolve the problem, however basic adjustments to the system made by an irrigation manager may be the only real solution. See also [Water Audits](#) conducted can be of even further help.